

Perimeter security technology gets even smarter

Reliable and sophisticated security technologies are in growing demand, particularly in large residential, business and industrial estates where perimeters are long and difficult to monitor. C3 Shared Services, a company specialising in the installation of intelligent video and thermal perimeter security systems, recently concluded an exclusive business agreement with Geoquip, a global leader in the design and manufacture of intelligent intrusion detection and perimeter security technology.

This partnership ensures that C3 Shared Services is able to install the latest products on the international market for their clients in South Africa. C3's business development director, Brendon Cowley, tells *SA Property Review* that the ongoing demand for the company's services has resulted in its fast growth over the past few years. Only recently, their custom designed perimeter security systems were installed at large developments including the Zwartkop Golf Estate, Southdowns Residential Estate and several of the Gautrain stations. C3 has also been appointed to carry out installations at Blue Valley Estate and Waterfall Country Estate – currently the country's largest residential development with the longest perimeter.

The fact that many of the perimeters at these large developments are often several kilometres long and cover territory which may undulate or have large patches of vegetation means that some of the simpler or more traditional technologies on the market aren't adequate. Security personnel will not realistically watch CCTV cameras for hours on end, or (understandably) respond with equal urgency to everyone of a large number of alarms – many of which could be false alarms. Brendon explains that C3's custom-designed installations and use of cutting edge technology ensure two key things: a low false alarm rate and a high probability of intruder detection.

Combinations of powerful optical and thermal cameras combined with intelligent video analytics are installed along the perimeter. This combination of best-of-breed thermal technology and intelligent analytics, ensures that C3's clients benefit from real-time situational awareness, instant visual verification of the exact cause, and...location of any potential perimeter breach threat – even in total darkness. The thermal cameras installed by C3 are equipped with long range lenses which are able to detect intruders at distances of up to 2 000m in total darkness.

There is a range of additional technologies (all from Geoquip) which can be used in combination with cameras to overcome particular constraints related to the site or to provide an additional level of

protection. For example, the Defensor Alpha sensing cable, which can be installed along the length of fences and walls and is used extensively by the Israeli military, is able to detect noises and disturbances over a length of some 1.7km. Coupled with an intelligent analyser, it uses multi-channel signal processing to ensure a high rate of detection and a low false alarm rate.

Perimbar is a high security infra-red beam detection system which is available in virtually any size, and has a range of up to 150m. It makes use of a number of different infra-red beams which are emitted in all directions, making it impossible to cover up or move around. A number of units can be used in an installation, and each one communicates with its own receiver, thereby eliminating confusion between them.

Hawk-i is a brand new technology which is a long range integrated detection system combining fibre optic sensing with a communication network. The cable can be buried or attached to a fence, wall or pipeline. Combined with a programmable analyser which is trained to differentiate between noises and movements which are typically cause for alarm and those which are not, Hawk-i has a 50km range and is able to pinpoint an alarm site to within one metre. It is able to detect human activity up to 15m away and vehicle movement within 40m.

As with any large or sophisticated installation, each solution should be custom designed to suit the particular challenges of the site and needs of the customer.

